EXHIBIT C

UNITED STATES DISTRICT COURT

DISTRICT OF MASSACHUSETTS

UNITED STATES OF AMERICA, et al., Plaintiffs,	Civil Action
vs.	No. 1:21-cv-11558-LTS
AMERICAN AIRLINES GROUP INC. and JETBLUE AIRWAYS CORPORATION, Defendants.	

DEPOSITION OF NATHAN H. MILLER, Ph.D.

Washington, DC

August 17, 2022

Reported by: John L. Harmonson, RPR

Job No. 213777

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Justice entitled "Evaluating the Performance of Merger Simulation: Evidence from the U.S. Airline Industry."

BY MR. WALL:

Q. You were going to find me the language you were talking about. I will note for the record that in the abstract the second sentence is: "I find that standard simulation methods which measure the effect of the change in ownership on unilateral pricing incentives do not generally provide an accurate forecast."

A. Yeah. So I think the most relevant paragraph, and I'll read it, is the paragraph that appears just before the conclusion in which he says: "The unifying theme in this analysis is that the oligopoly model used here and in nearly all other merger simulations does not allow one to distinguish among several plausible hypotheses explaining the observed pattern of post-merger price effects. While this leaves a great deal of uncertainty about precisely what accounts for these effects" -- the effects being what he's estimated -- "the results are nonetheless informative about what does not account for them,

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at least to not a significant degree. In particular, it appears that post-merger entry and exit and demand side effects of changes in flight frequency and airport presence played a relatively minor role in determining the impact of these mergers on prices.

"In short, the result suggests that in order to assess the likely effects of airline mergers on consumer welfare, an important focus should be on our understanding of the role of cost and firm conduct. While merger simulation can be useful to understand the effect of a merger on unilateral pricing incentives" -- and that's the way I've used it -- "such methods are likely to yield unsatisfactory predictions of a merger's overall effect, at least in the context of the airline industry, unless richer models of firm conduct are incorporated into the methodology."

Elsewhere in the other article he discusses why he believes that in the mergers that produced greater price effects than are predicted by the model, it's likely due to coordination between airlines.

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MR. DeRITA: Objection to form and assumes facts.

THE WITNESS: There was a long prelude there, and the question seemed to change the subject. So let me try to answer the question at the end. And the question at the end is would other carriers on the routes, without taking a stand on who they are because I haven't looked into the details of this particular market and this particular time, my -- typically I assume, and the assumption of economics, is that prices are set to maximize profit. And so I would -- I would typically think that other competitors see these prices and react accordingly.

BY MR. WALL:

Q. So your conclusion that the NEA functions like a partial or complete acquisition of ownership is based in the first instance on your understanding of the revenue-sharing terms; right?

MR. DeRITA: Objection; misstates testimony.

THE WITNESS: Two observations. I've tried to model the NEA itself, not simply assume

it's a merger or a transfer of ownership. And that's the way I think of the simulation model. The simulation model and the analysis I presented in Section 4 of my initial report and Section 2 of the reply report are based on my understanding of the MGIA which details the revenue-sharing terms within the NEA as well as the superstructure put in place by the NEA that describes and provides a mechanism for how American and JetBlue can coordinate their decisions on capacity and other related things.

BY MR. WALL:

Q. Okay. Before I get back to that, you mentioned before that, and kind of alluded to in this answer, that there is a difference in your simulation between a generic merger simulation. What is the difference?

A. The difference is that my model incorporates the terms of the NEA, and I will give you examples.

Example 1 is that a merger simulation would assume that when, for example, JetBlue determines its prices on one of its nonstop routes that it fully internalizes the effect of

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competition, the effect of those prices on a competing American connect route. Whereas an analysis of the NEA terms would indicate that it should only partially internalize the effect of its pricing on an American connect route in which it's in competition because only part of the revenue on the connect route is subject to the revenue sharing in the NEA.

So that's one way the model differs from a merger agreement.

Q. Anything else?

A. A second reason it differs is that the simulations that I've done that inform my baseline results on the unilateral effects of the NEA are confined to routes that touch the NEA, have an endpoint or begin at an NEA airport or are otherwise affected -- and these are the other affected markets served by the revenue-sharing terms. But there are other routes that are not affected by the NEA because they're outside the scope of the NEA, and I do not forecast in my baseline results harm along those routes.

There may be other smaller differences that I list in the report, but those are the ones

that are most meaningful, I believe.

Q. In the case of nonstop overlap routes that touch the NEA airports, how, if at all, does your simulation differ from a generic merger simulation?

A. Those routes also can feature connect traffic from American or JetBlue, or possibly both. And in those settings, the effects of the competing nonstop, the prices that are put on the competing nonstop route -- or on the connect route are only partially internalized, which is consistent with the terms of the NEA.

Q. Okay. So if I understand it, what you're saying is, say for example, San Francisco to New York, that some amount of the passengers are going to go New York, Chicago, to San Francisco. In a generic merger simulation, that would be fully internalized. But in this simulation, that particular feature of the connect traffic that competes with the nonstop traffic is subject to partial internalization?

A. That's correct.

Q. Okay. Anything else besides that?

A. As I said, aside from the, you know,

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trying to constrain it only to NEA markets, I think those are the big two that came to mind. But I'll refer you to the report because there might be nuances that come up, you know, looking at different markets.

Q. Okay. So focusing back on the importance of revenue sharing, is it appropriate to analyze the effects of the NEA on routes in which the parties do not share revenues as a merger? Let me say that again. I kind of botched it.

Is it appropriate to predict the competitor effects of the NEA on nonstop overlap routes on which the parties do not share revenue?

MR. DeRITA: Objection to form.

THE WITNESS: It can be appropriate. And I believe that I've done so in my report in the sense that I've tried to get a sense for how outcomes might change in other markets if the competitive effects of the NEA extend beyond what is explicitly covered in the NEA agreement.

BY MR. WALL:

Q. I'm sorry. I'm not talking about -- my question was limited to the nonstop overlap

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extent that JetBlue and American would act on the unilateral incentives to expand capacity that are as claimed by the defendants' economists in the course of the investigation, that the effect of that would be to reduce the joint profitability of American and JetBlue because those actions would exploit the other partner. And so that's the sense in which I analyzed it.

Q. So do I understand that you are comparing that outcome that they act on their unilateral incentives to expand capacity to a benchmark of joint profit maximization?

A. I would not characterize it precisely that way. I've assumed something close to joint profit maximization in the pricing stage, but it's not exact because it's respecting the specific terms of the MGIA and how revenues are shared.

And then in the capacity stage, I hold the capacity schedule fixed as it appears in 2019, and I don't model changes in capacity that might be conducted by American or JetBlue, but I do point out that to the extent that capacity increases occur because they're subsidized by the

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Q. Are you at least generally aware that his approach in his 2013 expert report was to make predictions regarding the effects of the American-US Airways merger based upon a retrospective study of the United-Continental merger?

A. No.

MR. DeRITA: Objection to form.

BY MR. WALL:

Q. You didn't know that?

A. No, I did not know that.

Q. Are retrospective analyses of transactions relevant or useful for determining the reliability of results from merger simulations?

MR. DeRITA: Objection to form.

THE WITNESS: That depends on the implementation of the retrospective and on how similar the event -- the historical event being described is to the event being examined in the model.

To put some meat on that, in the case of United-Continental, and in the case of American-US Air, both of these events involve a

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merger that was approved by the Department of Justice subject to divestitures which ameliorate anticompetitive concern.

And so the usefulness of a comparison of the estimated effects in a regression to a simulation result may not be informative even setting aside questions of implementation.

BY MR. WALL:

Q. I was asking something a little bit more specific. Do you find any utility in using a retrospective analysis to determine whether the results of a merger simulation are reliable?

A. Again, it can be informative. But whether it is informative will depend on the quality of implementation and on the comparability between the event being studied and the retrospective, and the event being studied in the simulation.

And in my previous answer I gave you an example for why we might not think that would be the case, comparing the merger events that occurred in the airlines over the last 14 years to the simulation model of the NEA that I use.

Q. You wrote an article in 2017 published

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A. As I've stated before, there's numerous obstacles for isolating an effect of an agreement like the NEA in data that we've talked about. And I'm not optimistic those can be overcome in this instance.

Q. Okay. I want to switch topics a little bit and talk about retrospectives again.

MR. DeRITA: Before we move on, I just want to put on the record some objections to this document. I want to preserve all objections on it. We haven't seen this document before. It wasn't produced in advance. We have no way of knowing whether the numbers are accurate.

In addition to the objections, also we would like you to commit to producing any backup that went into making this document.

MR. WALL: We're happy to do that. That's fine.

THE WITNESS: Can I give this to somebody just to clear some space in front of me?

(Off the record.)

BY MR. WALL:

Q. So retrospectives. Could you please explain your position as to the value of airline

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merger retrospectives in predicting the effects of the NEA?

A. Well, the NEA creates incentives that are similar in many respects to those that are created by a merger. And so it is natural to look into whether merger retrospectives can be used to make inferences about competition.

Of course, I've looked into whether that would be promising. Some of my own research looks into that. And I find that in the context of airlines, isolating the effect of a merger on fares is quite difficult to do. And given that, despite the initial appeal, I don't view the airline retrospectives as providing much useful information about the likely competitive effects of the NEA.

Q. Okay.

MR. WALL: Can you pull up the merger guideline, please?

MS. NELSON: An exhibit or just reference?

MR. WALL: Just reference.

BY MR. WALL:

Q. So I gather it is your position that